

FIG. 1

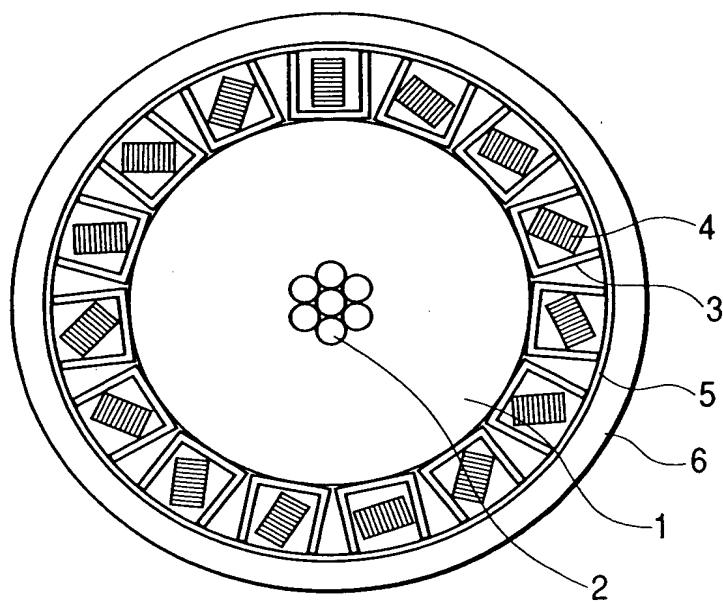


FIG. 2

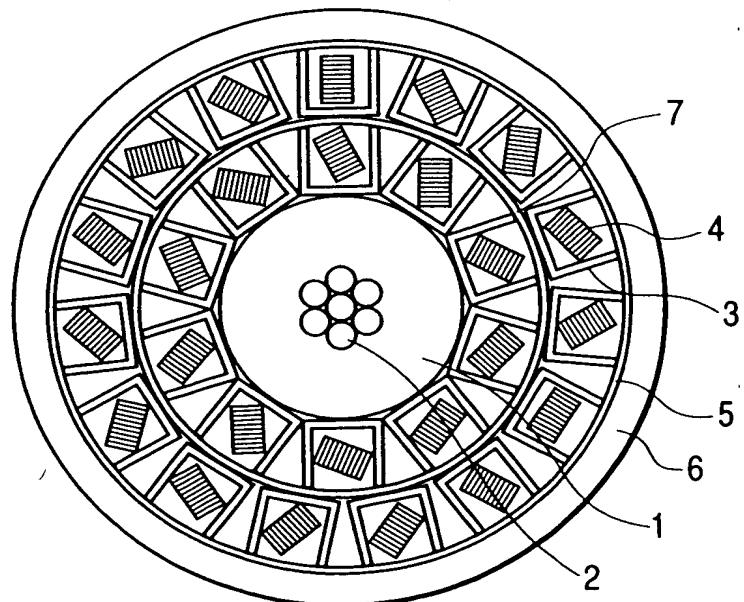


FIG. 3

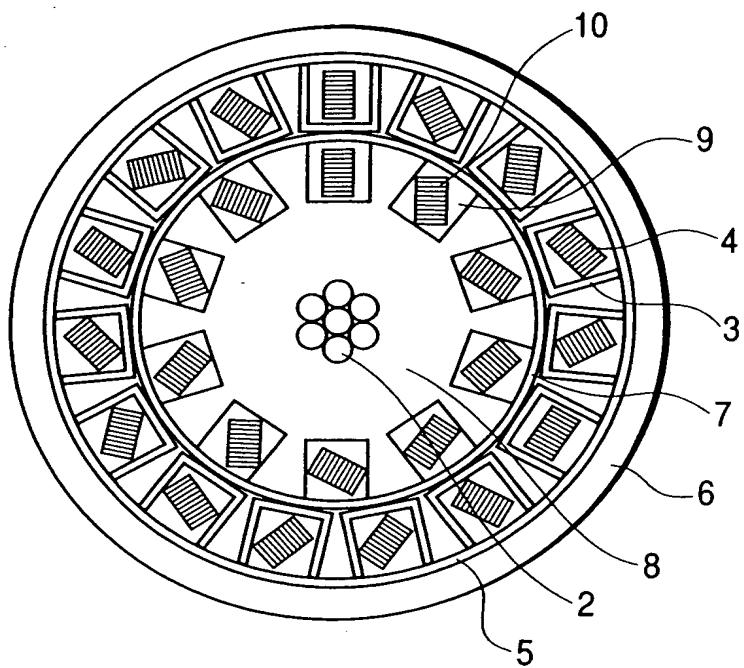


FIG. 4

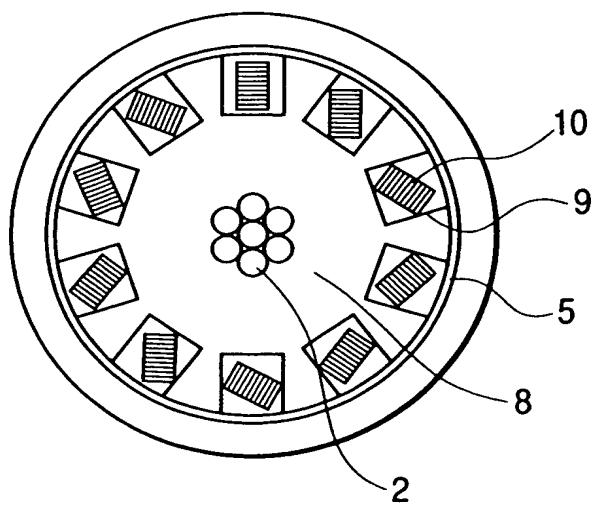


FIG. 5A

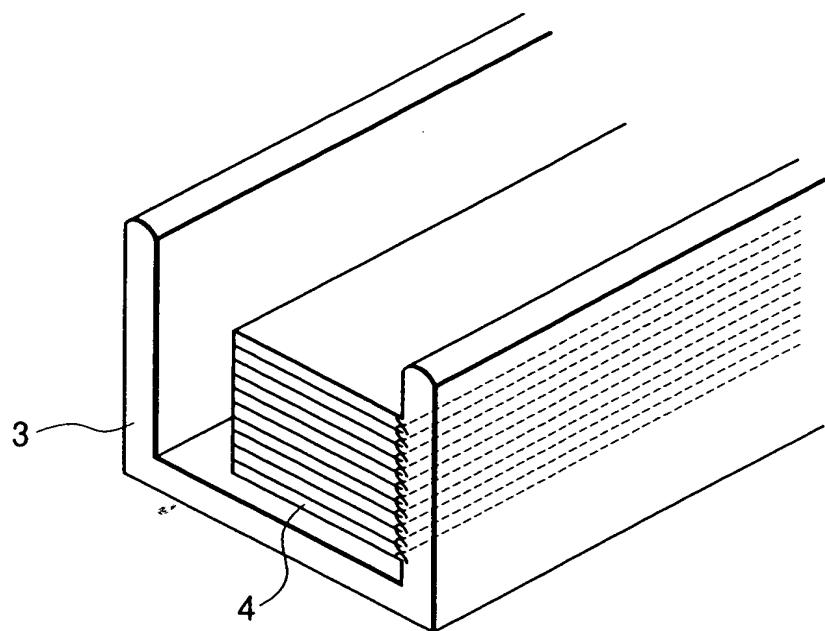


FIG. 5B

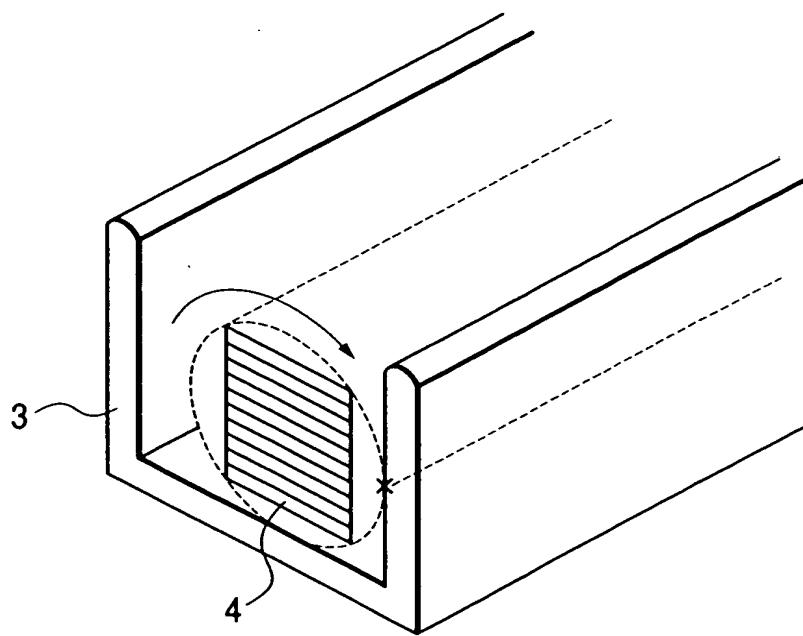




FIG. 6

| CABLE | ONE-GROOVE SPACER | MAXIMUM TRANSMISSION LOSS | | | |
|----------------------|-------------------|--|------|------|------|
| | | TWISTING PITCH LENGTH OF OPTICAL FIBER RIBBONS (mm) | | | |
| | | PITCH LENGTH (mm) | 1000 | 700 | 600 |
| FIRST EMBODIMENT | S TWISTING | 700 | 0.28 | 0.24 | 0.23 |
| | SZ TWISTING | 700 | 0.26 | 0.25 | 0.22 |
| SECOND EMBODIMENT | S TWISTING | INNER LAYER 700 | 0.27 | 0.23 | 0.22 |
| | SZ TWISTING | OUTER LAYER 700 | 0.28 | 0.24 | 0.23 |
| | S TWISTING | INNER LAYER 700 | 0.25 | 0.25 | 0.21 |
| | SZ TWISTING | OUTER LAYER 700 | 0.26 | 0.25 | 0.21 |
| THIRD EMBODIMENT | S TWISTING | 700 | 0.28 | 0.24 | 0.23 |
| | SZ TWISTING | 700 | 0.26 | 0.25 | 0.22 |



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FIG. 7 (Prior Art)

